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EXAMINER

WERNER, DAVID N

ART UNIT	PAPER NUMBER
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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/737,184

Applicant(s)

KURCEREN ET AL.

Examiner

David N. Werner

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-32 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office action for US Patent Application 10/737,184 is responsive to the Request for Continued Examination filed 09 October 2007, in reply to the Final Rejection of 18 July 2007. Currently, claims 2-32 are pending. Claim 1 has been cancelled.

2. In the previous Office action, claims 27-32 were rejected under 35 U.S.C. 101 as non-statutory, claims 1-10 and 13-31 were rejected under 35 U.S.C. 103(a) as obvious over US Patent 5,802,226 A (Dischert et al.) in view of US Patent 6,526,099 B1 (Christopolous et al.), and claims 11-12 and 32 were rejected under 35 U.S.C. 103(a) as obvious over Dischert et al., in view of Christopolous et al., and in view of US Patent 5,447,276 A (Oguro).

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 October 2007 has been entered.

Response to Amendment

4. Applicant's amendments to claims 27-32 have been fully considered. The rejection of claims 27-32 under 35 U.S.C. 101 has been withdrawn.

Response to Arguments

5. Applicant's arguments filed 15 October 2007 have been fully considered but they are not persuasive. Applicant makes three arguments: first, that the figure 3 embodiment of US Patent 5,802,226 A (Dischert et al.) does not teach video signals in a transform domain or compressed domain (Arguments, pg. 8), second, that Dischert et al. is directed to a trick-play mode device, and not a video fade device, as claimed (Arguments, pg. 9), and third, that US Patent 6,526,099 B1 (Christopolous et al.) is incompatible with shuffler 406 and shuffler 408 of Dischert et al. (Arguments: pp. 9-10).

6. In response to the argument that the figure 3 embodiment of Dischert et al. was properly relied on, it is respectfully submitted that in the Prior Office action, the figure 3 embodiment was only relied on in the rejection of the independent claims for teaching "obtaining data from a video bitstream" (Office action, pg. 5). Applicant is directed to column 2: lines 52-58 of Dischert et al., which state that the mixing circuits of figures 9 and 10 may be used in either the figure 3 embodiment or the figure 8 embodiment. Figure 8, in turn, is a detail of figure 5 (column 2: lines 50-51), which the Applicant admits is part of a second embodiment directed towards mixing video signals in the spatial frequency domain (Arguments, pg. 9).

In the second embodiment of Dischert et al., figure 4 shows video input from interface 402 and 404 and figure 5 shows video input from the helical track of a digital video tape to playback heads 418 and 526. This corresponds to the claimed "obtaining...data from the bitstream". It is therefore respectfully submitted that nowhere in the rejection of independent claims 1, 13, 18, or 27 was the figure 3 embodiment of Dischert et al. relied on as teaching editing frequency-domain video, and the rejection of the independent claims could be made solely from the figures 4-6 embodiment.

7. In response to Applicant's argument that the intended use of Dischert et al. is playing video in a trick play mode whereas the intended use of the current invention is producing a "video fade effect" (Arguments, pg. 9), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The fact that Dischert et al. rearranges video sources prior to mixing is irrelevant to its teaching of the presently claimed element of mixing frequency-domain video. It is also respectfully submitted that current independent claims 2, 4, 13, 18, and 27 are not directed to a "video fade effect", but only a "video effect" or an "editing effect". A video fading effect is introduced in dependent claims 8-12, 31, and 32. Since it has been demonstrated that Dischert et al. is capable of producing a fade effect (column 7: lines 5-9), it is respectfully submitted that Dischert et al. remains a valid prior art reference for the claimed invention.

8. In response to Applicant's arguments concerning Christopolous et al., it is respectfully submitted that the shuffler 408 of Dischert was not cited in the prior Office action. Therefore, it is irrelevant whether applying the mixing operation of Dischert to video encoded with residual data or error data changes the operation of the shuffler. Applicant is reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Claim Objections

9. Claim 12 is objected to because of the following informalities: although Applicant has removed the dependency of this claim on cancelled claim 1, Applicant has failed to state what claim is the new parent of claim 12. It will be assumed that claim 12 now depends on claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-10 and 13-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,802,226 A (Dischert et al.) in view of US Patent 6,526,099 B1 (Christopoulos et al). Dischert et al. teaches a video editor that operates

on frequency-domain video (abstract). Regarding the obtaining data from a video bitstream in claims 2, 4, 13, and 18, figure 4 shows video streams inputted into analog/digital interface 402 and 404, and figure 5 shows video streams inputted into digital VCR heads 418 and 526 from the helical track of a digital video cassette. Regarding the modification of video data with additional data in claims 13, 18, and 27, Dischert et al. modifies video data by producing a fade effect from one video clip to another. Then, one scene of the video may serve as primary video data, and a second scene of the video may serve editing data. Regarding the "scaling" of video data in claims 2 and 4, figure 10A shows a mixer with first multiplier 104 that multiplies a first video stream by coefficient K and second multiplier 102 that multiplies a second video stream by coefficient J (column 6, line 65 – column 7, line 4). Regarding the modification of transform-domain video in claims 2, 5-7, 13, 18, and 27, figure 8 shows video data processed through DCT 60 before being input into mixer 80. Regarding the compressed bitstream in claims 4, 14, and 19, figure 6 shows video data processed through run-encoder 64 and variable-length encoder 66, and regarding the quantized data in claims 6, 7, and 17, figure 6 shows video data processed through quantizer 62. Regarding the coded data in claim 7, Dischert et al. discloses that the video data is encoded with an error correction code (ECC) encoder (column 4, lines 55-57).

Regarding the fade to a color in claims 8 and 31 and the fade to black in claim 9, Dischert et al. discloses that video data may be faded to black as part of a transition sequence (column 7, lines 5-9). Regarding the addition of editing data to a bitstream in claims 13, 18, and 27, figure 10A of Dischert et al. shows a first video bitstream input

through terminal 100 and a second video bitstream input through terminal 102 and added by adder 105. Regarding the inverse quantization in claims 14 and 19, figure 7 shows decoder 510 with inverse DCT 76. Regarding the combination of editing data to transform coefficients in claims 15 and 20, mixer 80 takes as input a series of frequency coefficients (column 7, lines 14-16). Regarding the secondary editing in claims 16 and 21, figure 10A shows a two-step mixer that multiplies video signals by a coefficient and then adds them (column 7, lines 1-12).

Regarding the storage medium in claim 25, figure 4 is directed to the recording operation of a digital video cassette recorder, with a modified bitstream recorded by record head 418 onto the helical track of the cassette. Regarding the decoder in claim 24, figure 5 shows video data processed through decoder 510 before output. The label of "Audio" output from D/A converter 504 should be video (column 5, lines 31-38). Regarding the multiplication operation of claims 28 and 30, figure 10A shows a mixer with first multiplier 104 that multiplies a first video stream by coefficient K and second multiplier 102 that multiplies a second video stream by coefficient J (column 6, line 65 – column 7, line 4), and regarding the addition operation of claims 29 and 30, adder 105 adds the signals edited by the two multipliers.

Although Dischert et al. specifies ECC-encoded video data, Dischert et al. is silent on residual video data or error video data. Christopoulos et al. teaches a transcoder that operates on spatial domain or frequency domain (abstract). Regarding the residual data in claims 1, 3, 5-7, 13, 18, and 27-30, Christopoulos et al. operates on video that has been coded with predictive coding. In predictive coding, instead of

transmitting every pixel value, instead only the variation between pixels is transmitted (column 1, lines 40-49). Regarding the error data in claims 3, 5, 13, and 18, this value is a prediction error from the assumption that pixel values are related in a certain way. Regarding the receiver in claim 23 and the transmitter in claim 26, Christopoulos et al. incorporates a receiver into the transcoder (column 9, lines 11-13, 19-35), and outputting an encoded video stream via a transmitter (column 2, lines 10-17). Regarding the software code that provides editing data in claim 27, the transcoder of Christopoulos et al. operates by performing editing operations on a video stream, such as introducing DCT values or motion vectors for an image with a new resolution, and may be implemented in hardware or in software (e.g. column 8, lines 31-32; column 8, lines 66-67). Dischert et al. discloses the claimed invention except for modifying residual error video data. Christopoulos et al. teaches that it was known to perform functions on predictive-coded video data. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to operate on predictive-coded video data as taught by Christopoulos et al., since Christopoulos et al. states in column 1, lines 15-31, that such a modification would allow the transmission of high-quality images over a narrow bandwidth.

Regarding the fade to white in claim 10, Dischert et al. only teaches a fade to black. However, it would have been a matter of obvious design choice to one having ordinary skill in the art to fade to any desired color, since the applicant has not disclosed that fading to any arbitrary color, including white, solves any stated problem or is for any

particular purpose, and it appears the invention would perform equally well with fading to white.

Regarding the electronic camera of claim 22, the examiner takes Official Notice that video cameras were well-known at the time of the invention as a source for providing video data, such as to analog/digital interface 402 and 404 of Dischert et al.

12. Claims 11-12 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dischert et al. in view of Christopoulos et al. as applied to claims 1 and 27 above, and further in view of US Patent 5,477,276A (Oguro). Although Dischert et al. teaches a video editor that performs basic operations such as a dissolve, a cross-fade, and a fade to black on frequency-domain data, it does not teach advanced editing effects. Oguro teaches a DSP apparatus that performs advanced fading effects. Regarding the fade from one color to another in claims 11 and 32, Oguro can fade in or fade out to any arbitrary color (column 11, lines 22-27; lines 46-51). Regarding the fade to monochrome in claim 12, the fade system of Oguro may operate only on Y (luminance) values and not process C (chrominance) values, thus performing only black-and-white fade operations (column 11, lines 6-21). Dischert et al. in combination with Christopoulos et al. teach the claimed invention except for advanced fading techniques. Oguro teaches that it was known to perform fading techniques such as a fade to color or monochromatic fade. Therefore, it would have been obvious to one having ordinary skill of the art at the time the invention was made to apply the fading of Oguro to the editor of

Dischert et al., since Oguro states in column 11, lines 29-51 that such a modification would simplify the circuitry needed in a fading device.

Conclusion

13. Although there are no new grounds of rejection, this Office action is non-final due to a different interpretation of the Dischert et al. reference, no longer relying on the figure 3 embodiment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Werner whose telephone number is (571) 272-9662. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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DNW

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